# Jet Propulsion Laboratory California Institute of Technology

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TO: Distribution

FROM: Eugene S. Burke

SUBJECT: Minutes for the Joint Users Resource Allocation Planning Committee Meeting held

November 18, 2004.

# **NEXT JURAP MEETING:**

Thursday, January 20, 2005 JPL Bldg. 303, Room 401 1:00 p.m.

#### Attendees:

Alvarez, M.	Compton, B.	Jacobs, C.	Poon, P.
Andujo, A.	Davarian, F.	Lacey, N.	Rafferty, M.
Best, R.	Doody, D.	Lock, B.	Retana, J.
Breidenthal, J.	Frautnick, J.	Millon, R.	Ward, C.
Brymer, B.	Hall, J.	Morobitu, D.	Yee, S.
Burke, E.	Hampton, E.	Morris, D.	Zamora, K.
Call, J.	Holladay, J.	Moyd, K.	

The Joint Users Resource Allocation Planning Committee meets monthly to review the status of Flight Projects, the requirements of other resource users, and to identify future requirements and outstanding conflicts. The previous meeting was held on September 16, 2004 at the Jet Propulsion Laboratory.

#### Introductory Remarks - G. Burke

Welcomed the attendees to the JURAP meeting and announced that there would be a number of special presentations in regards to calibration requirements requests received and additional communications set-ups for the standard downtimes that are currently scheduled in the long-range forecast. Inputs from projects would also be discussed and RAPSO study results presented. Attendees were reminded that copies of all presentations made during this meeting would be posted to the RAPWEB for future reference. There will be no JURAP meeting held in the month of December

#### RARB Action Items – D. Morris

Reported on the status changes of the two remaining August 2004 RARB Action Items:

# **Action Item #1: Pending**

Meetings will be held in December directed at reducing contention in July and August of 2006 at DSS-14 due to oversubscription by GSSR activities, Cassini and Mars Odyssey.

#### Action Item #2: Closed

Due to oversubscription on 34m and 70m subnets in August and September 2006, the Mars Program will provide an integrated schedule using MSPA when possible that will coordinate the needs of MGS, Odyssey and MEX coverage during the MRO Aerobraking period. This should reduce conflicts while satisfying their contact needs.

#### SPECIAL REPORTS

#### Ka Band Calibration - J. Breidenthal

Informed the JURAP committee that there was a need to revise the standing practice of calibrating the pointing of 34m BWG antennas once per year, since recent experience has shown that antenna pointing drifts much faster than expected. Due to this finding, it was determined that more calibrations of the antenna pointing are required in order to meet Ka-band customer commitments. There has not been enough testing to determine which calibration schedule will work best for this activity. Some flexibility in scheduling is possible. Ka Band pointing requirements and the impacts of this activity on scheduling were also discussed.

# Deep Impact Launch Status - J. Call / R. Benson

Presented a Deep Impact mission launch status update. A Launch Vehicle Readiness Review and a DSMS Mission Event Readiness Review are scheduled for November 30, 2004. Operations Readiness Tests (ORT) are also scheduled in this same time period. ORT-6 has DSN involvement. Deletion of the ORT-3 has bumped up the schedule and affected the criticality of all successive ORTs. Launch is currently scheduled for December 30, 2004, with a 23-24 day launch window that ends on January 19, 2005.

NOTE: Deep Impact Launch will take place no sooner than January 12, 2005.

#### Cassini & Huygens Probe Status - D. Doody

Provided an update on the project's recent activities and upcoming major events. A failed transmitter at DSS-14 was the only glitch in DSN support during the recent Iapetus Distant Flyby activity. However, stunning images acquired during this activity were shared during the presentation. Level-1 support will be required for the upcoming Huygens Probe Release scheduled for December 24, 2004.

## COMM Preventive Maintenance - J. Holladay /M. Alvarez

Presented on the DSN Ground Communication community's request for one (1) hour of scheduled maintenance per month for the CCT and for each complex (SPC-10, 40, and 60). The purpose of this request is to perform preventative maintenance activities to minimize equipment failure during an active mission support.

The objective and proposed schedule for this activity was discussed. The Operation Engineer

will work closely with the RAP group in order to develop the proposed schedule and assess the potential impacts on DSN user community.

## DSN Downtime Forecast – A. Andujo

Changes to 2004 Downtime Schedule

- Painting activity for all Canberra stations were scheduled due to contractor warranty dictated deadlines
- Painting activity also scheduled for DSS-55
- Jacking Pad installation at DSS-65 was scheduled and completed successfully. Work is still ongoing for this effort during regular maintenance periods
- 4-day downtime RMH Pumps at DSS16 has been successfully schedule
- There is a potential for an extension of the DSS-14 downtime

#### Changes to 2005 Downtime Schedule:

- DSS-27 NSP Downtime scheduled in Week 01 04/2005 has been cancelled
- DSS-27 USC Downtime is planned for Weeks 02 03/2005

For a complete listing of Antenna Downtimes visit the following link for the RAPSO website: <a href="http://rapweb.jpl.nasa.gov/planning.htm">http://rapweb.jpl.nasa.gov/planning.htm</a>

# Resource Analysis Team – N. Lacey

# **Mid-Range Status**

- Weeks 01 04/2005 transferred to DSN Scheduling November 5, 2004
- Weeks 05 08/2005 will be released to DSN Scheduling on December 3, 2004
- Weeks 09 20/2005 awaiting conflict resolution, placing Mid-Range schedules at 26 weeks ahead of real time with 10 weeks conflict free and 16 weeks requiring conflict negotiation

### RARB Summary of Mission Changes Since the August RARB is listed below:

There are numerous changes and the presentation is included with these minutes.

#### **Special Studies Summary:**

- SOHO Impact in 2005 of weekly 26m subnet 4-hour maintenance for Receiver Phasing. The impact of the 26M phasing on the SOHO mission in 2005 is projected to be minimal. SOHO will experience a 1-3 percent supportability reduction in 2005 due to the increased maintenance requirement while maintaining an average supportability greater than 85%. Although this is considered a workable percentage, substantial negotiation will be needed during the mid-range scheduling process to solve any remaining contention issues.
- SOHO Supportability Analysis of Keyhole Periods in 2007 SOHO is expected to receive greater than 85% of the requested time during keyhole coverage in 2007. This is considered a workable percentage which should be handled by the mid-range scheduling office.
- Stereo Ahead and Behind Mission Support Update

The analysis of the DSN network loading and contention for the period of February 2006 through the End-Of-Prime Mission May 16, 2008 project that STEREO Ahead and STEREO Behind can expect to receive 89 to 95 percent supportability of their requested support during the life of the mission.

Ulysses Continuous Coverage Question in 2005 (Swift – GRB)
 A visual inspection of the current mid-range schedule for ULYS and the "what-if" schedule having 24-hour coverage for ULYS confirms that ULYS cannot get continuous coverage during the requested time period from January through April 2005. In order for ULYS to get additional support outside the gaps already existing severe renegotiation with other missions is necessary.

### FLIGHT PROJECTS REPORTS

The following Project/Users Status Reports are included with the Minutes:

Ulysses – B. Brymer

Stardust - R. Ryan

Mars Global Surveyor – E. Brower

Mars Exploration Rover – B. Compton